

REMARKS

Claims 1-32 are pending in the application. Claims 1-32 stand rejected.

The specification is objected to for format. A substitute specification is enclosed herewith correcting the line spacing. In addition the "Brief Description of the Drawings" section is moved to after the Summary section and the heading "Detailed Description" is added. In the Summary of the Invention section three spelling errors were corrected. "In am" was changed to "In an."

No new matter is entered.

The Drawings were objected to as not showing elements recited in claims 14, 17, 21 and 26. Claims 17, 21 and 26 were cancelled herein obviating this objection.

With regard to claim 14 the Office Action likewise mentions it as not supported in the drawings, however in the Office Action it appears the description associated with claim 14 is referring to claim 16. It is believed the Office Action was actually referring to claim 16. Claim 16 has been cancelled herein.

Claims 1-32 were objected to for line spacing. The enclosed claims correct this deficiency.

Claims 6 and 13-28 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

Claim 6 has been amended to clarify applicant's claimed invention. Claim 6 is now an independent claim.

With regard to claims 13 and 14, the antecedent basis has been clarified in these claims.

Claims 17 and 26 have been cancelled obviating their rejection.

It is respectfully requested the claim objections and claim rejections under §112, second paragraph be withdrawn.

Prior Art Rejections

Claims 1, 3-7, 13, 15-22, 29 and 31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gentzler (US 6,046,635) in view of Isobe et al. (US 4,584,712) (Isobe) and Leizerovich et al (US 5,880,633).

Applicant's independent claims 1, 13 and 29 each recite an orthogonal splitter, which splits one of said signals into first and second subsignals which are mutually orthogonal.

The Office Action points to Isobe Fig. 6, col.3:25-27, however Isobe actually describes obtaining 22 by subtracting (3-4) and obtaining 23 by adding (3+4). Isobe does not teach splitting a signal into first and second subsignals with regard to 22-25 and 23-32.

It is respectfully submitted that Isobe 22-25 does not correspond to applicant's second signal and 23-32 does not correspond to applicant's first signal.

In addition the Office Action points to Gentzler as splitting a signal into first and second signals (Fig. 1, 22 and 36) and the Office Action states that the Abstract supports applicant's claimed, for example claims 1 and 2, canceling said first signal by the third signal thereby obtained.

However Gentzler teaches canceling the distortion component added by the main amplifier. Signal 22 in Gentzler is part of the input signal however it is not the distortion component added by the main amplifier.

Claims 3-7 depend from claim 1, claims 15-22 depend from claim 13 and claim 31 depends from claim 29. It is respectfully requested the rejections be withdrawn for at least the foregoing reasons

Isobe describes in col 3:25-39 the output of the subtractor applied to the 90 degrees splitter 25 is sent out in the same phase to the balanced mixer....

Claims 2, 8-12, 14, 23-25, 27-28 30 and 32 are rejected under 35 U.S.C.§ 103(a) as being unpatentable over Gentzler in view of Watanabe et al. (US 5,046,133) and Liezerovich et al.

Applicant's claim 2 recites: orthogonally recombining said first and second subsignals after respective amplitudes thereof have been adjusted, forming a third signal

Applicant's claims 14 and 30 both indicate: first and second amplitude adjusters, which are able to adjust the amplitudes of the first and second subsignals

The Office Action equates applicant's first and second subsignals to Gentzler Fig. 1 46 (first subsignal) and 38-40 (second subsignal) (Page 10 Office Action, lines 3-5).

First Gentzler Fig. 1 46 is a delay in the line 36. In Gentzler line 36-46 (first subsignal) there is no teaching or suggestion of an amplitude adjuster which is able to adjust the amplitude of the first subsignal. Thus Gentzler does not teach applicant's claimed invention of claims 2, 14 and 30.

In addition applicant claims canceling said first signal by the third signal thereby obtained or orthogonally combining said first and second subsignals which have undergone amplitude adjustment.

The Office Action points to Gentzler re-combiner 70 (Office Action line 4, page 10) to combine the first and second subsignals. Then the Office Action points to combiner 50 Fig. And the phase shifter 62 as the phase shifter. However according the the comparison made in the Office Action re-combiner 70 would combine the first signal and second subsignal not 50 and 62.

Therefore it is respectfully submitted that there is no suggestion to make such a combination with the reference Watanabe et al. and there is no suggestion which would lead one skilled in the art to make such a combination of prior art.

Thus even if all the elements were present in the cited references, it is well-established that a combination of limitations, some of which separately may be known, may be a new combination of limitations which is nonobvious under the condition of 35 U.S.C. 103. Moreover, "an examiner may often find every element of a claimed invention in the prior art." *In re Rouffet*, 47 USPQ3d 1453, 1457 (Fed. Cir. 1998) (reversing PTO obviousness rejection based on lack of suggestion or motivation to combine reference).

Therefore even if every element of a claimed invention is in the combined prior art there must be some suggestion or motivation to combine the references. "Although a reference need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability, in whatever form must nevertheless be 'clear and particularity.'" *In re Dembiscak*, 175 F.3d 994, 999 (CAFC 1999).

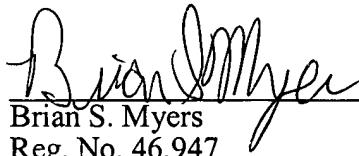
The only such suggestion provided has been from applicant's own disclosure.

For at least the foregoing reasons it is respectfully submitted that the cited references fail to make claims 2, 8-12, 14, 23-25, 27-28 30 and 32 obvious and the rejection should be withdrawn. The dependent claims have further distinguishing features and stand on their own right.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,



Brian S. Myers
Reg. No. 46,947

CUSTOMER NUMBER 026304
Telephone: (212) 940-8703
Fax: (212) 940-8986 or 8987
Docket No.: FUJ 17.619 (100794-11510)
BSM:fd